

Using Linked Housing, Banking and Transportation Policy to Bring Home the Benefits of Livable Communities

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Chairman Dodd, Senator Shelby and members of the Committee—our heartfelt thanks to you for sponsoring this important symposium to explore the choices the federal government can take to advance transportation choices and transit oriented development for all American households.

I'd like to use this brief time to share the results of important research that has a bearing on your deliberations, and to recommend a series of changes in the provision of information, decision support tools, planning assistance and in your oversight of financial services industries that can be implemented within existing authority, including the oversight of resources recently approved as part of the recovery package; as well as a set of more extensive changes that should be incorporated within the reauthorization or new authorization of surface transportation and housing legislation.

What We Have Learned about Location Efficiency and Affordability

Transportation is a function of convenience and accessibility. If everything a household or business needs is “right there,” the need to travel is trivialized. Conversely, if jobs, shopping, schools, services and friends are distant or located on routes that are disconnected from easy access, the opposite is true. This isn't just about the journey to work and what scholars call spatial mismatch—only 18 percent, less than one metropolitan trip out of five taken, is to access work. The fact that the Census only asks about journey to work, and not the other trips, the fact that surface transportation planning statutes focus on reducing peak travel times, and the fact that the scoring system used by FTA equates economic development with the imputed value of estimated time savings from proposed projects, among other practices, shift the focus away from the demand for and purposes of travel and toward finding ways to increase the supply of highway travel capacity. Since increasing capacity in this way is highly destructive of otherwise productive land, this constitutes a major anti-communities, anti-livability and anti-urban bias.

If transportation were a trivial portion of household expenditures, this would be a very different discussion. In 1920, transportation accounted for 3-5 percent of household expenditures, housing 27 percent, and food 41 percent, respectively. Today, our research shows that transportation accounts for 15-35 percent, housing 25-35, and food 16 percent, respectively. In 1920, every American city of 5,000 or more had at least one electric street railway system. The streets of American came with transportation choice. Transportation special service districts provided a means for sharing the burden of street maintenance between cities, property owners, transit operators and developers, much as tax-increment, special service, and business improvement districts do today. It is not an exaggeration to say

that the streets of American were made possibly by mass transportation, and what resulted was a steady increase in the livability of those communities so served, and in the affordability of a convenient location.

Nature of the Metropolitan Real Estate Market and Drive ‘til You Qualify

The typical median income household in America today is a two-car household. This is a function of a “drive ‘til you qualify” real estate market. A set of market factors and public incentives and barriers simply makes it easier to build housing in increasingly distant places, than to build more efficient housing in more efficient and convenient locations. While average household size dropped from 3.3 to 2.6 persons per household between 1960 and 2000, the average size of homes built increased from 1400 to 2200 square feet. And as the market moves development beyond the built footprint, the extension of infrastructure and related services must be paid for by the resources of those who are, in effect, left behind. A conservative estimate is that the sum of the cost of water, sewer, gas, electric, telecommunications and transportation is approaching \$100,000 per dwelling unit, and that the sum of these costs plus land is half of the cost of bring a home to market. By contrast, the cost of acquiring land in an existing community and upgrading infrastructure connections is in the range of \$10,000 to \$20,000 or less—in areas where infrastructure is overbuilt and there is excess capacity, the “cost” could actually be negative.

In a drive ‘til you qualify market, the buyer or renter is on the wrong side of what economists call an “information asymmetry,” wherein sellers always know more than buyers. In this case, the home seeker is exposed to the cost of housing, but not to the cost of transportation. Somewhere in the range of 10 to 15 miles from where they work, or a similar distance from the center of a region, housing costs drop swiftly—but transportation demand increases due to the need to own more cars and drive them often. This also results from simple geometry—the area that needs to be covered at lower densities increases as the square of the distance covered, so that it’s impossible to completely saturate an entire suburban region with good transit coverage as easily as can be done in a more urbanized form.

Redefining Affordability to Include Both Housing and Transportation

One way to analyze the impact of this situation is a relatively new product, the Housing and Transportation Affordability Index. The traditional affordability index is a housing affordability index, for which the heritage is an ancient English rule of thumb known as “a week’s wage for a month’s rent.” This is currently translated in HUD regulation as a situation that occurs when housing expenditures, or more specifically, the sum of contract rent plus utilities, for a household or a cohort of households, is less than or equal to 30 percent of household income. The uses of these indexes currently are—

- Describe a typical household’s housing expense
- Analyze trends & compare different HH types
- Administer rules defining who can have subsidies
- Define housing needs for public policy purposes
- Predict the ability of a HH to pay rent or mortgage
- Select HHs for a rental unit or mortgage
- Counsel a household on goals for reducing the cost of living

In an H+T Affordability Index, the standard index is modified to include the household cost of transportation. Our organization has led a body of research into location efficiency and the household cost of living in studies conducted for and supported by federal agencies (FTA, USEPA, USDOE, HUD), the National Academy of Sciences (Transportation Research Board), leading urban and metropolitan research and practitioner groups (Brookings, the Urban Land Institute, the Center for Housing Policy, the National Housing Conference), leading foundations (Ford, Rockefeller, MacArthur, Joyce and Surdna), metropolitan planning organizations (SF Bay Area, Los Angeles, Chicago, Tucson), and public interest organizations (Surface Transportation Policy Partnership, Reconnecting America) among others. This work has been peer reviewed and published most recently in the NAS Transportation Research Record, December 2008. The data have been assembled on a public access map server, the address of which is listed below, for 54 metropolitan regions with roughly half the US population, and by June this year will include all metropolitan statistical areas, with 84 percent of the US population.

Here's some data from a recent analysis of metropolitan Milwaukee, WI.

- Gas = \$2.00/gallon, Median Income = \$52,000
- 3 Cars, 35,000 VMT, No Transit, \$15k/year housing = 72.8% for H+T
- 2 Cars, 25,000 VMT, No Transit, \$18,684/year housing = 65.9% for H+T
- 1 Car, 15,000 VMT, \$100/Month Transit, \$20k/year housing = 56.5% for H+T
- 0 Car, \$200/Month for Transit, \$200/Month for Car-Sharing, \$22k/year housing = 51.5% for H+T

Note that in moving from an area requiring 3 cars per household and 35,000 vehicle-miles of travel per year to one where a household needs just one car and has transit access increases housing costs by \$5,000, but reduces transportation costs by \$12,000, for a net reduction in the cost of living of 18.3 percent. Even moving from a location requiring 2 cars and 25,000 miles per year to one where the household needs just one reduces costs by 9.4 percent. What this shows is that in chasing the apparent value in lower-priced housing, the nature of the market undercuts that goal by requiring the use of higher-cost transportation, but that in providing better amenities that result in lower costs, we can increase disposable income significantly, tax-free.

The combination of better land use with more proximate amenities and transit availability (bus-only in the case of metro Milwaukee) allows reversing the “drive ‘til you qualify choice” with a “relocate ‘til you can walk and ride more” or a “locate where you can really afford it” alternative.

In the zero-car case presented above, we've postulated a service that doesn't exist yet in Milwaukee, but does in Chicago, Portland, Seattle, DC, SF and many other places. Car-sharing is a form of on-demand or demand-response mass transportation that is offered on a distributed basis. Much like scheduled bus and streetcar services provide “streets that come with transportation choice,” car-sharing provides a “communities that let you live with one-less car” too. In studies across the country, half of all car-sharing users sell a car within a year of joining, and all users increase their use of available mass transit for longer trips. The average utilization is 37 households per car offered; the experience is that each car made available takes one car off the road permanently. In Chicago, where our organization operates

a 200 car fleet, if one such car was available on each of the City's 25,000 blocks, car ownership would be reduced 400,000 vehicles, or 40 percent of locally generated traffic, leading to an increase in demand for transit by several times current use. These car-sharing services pay between 80 and 90 percent of their full costs, both capital and operating. They are not currently classified in the federal system as a form of mass transportation; if they were, they'd be among the high-performers in the US, as well as in Canada and the EU.

Using This Knowledge to Prevent Financial Loss and to Improve Housing and Community Wealth

These costs are conservatively estimated using current gasoline prices. While gas prices typically halved from last summer, they will surely go up again, and likely reach June 2008 levels somewhere between 18 and 36 months from today.

Transportation and gasoline prices can easily approach or exceed the cost of housing for working families, defined as those earning between \$20,000 and \$50,000, as research we conducted for the Brookings Institution, the Center for Housing Policy, the Urban Land Institute, the Transportation Research Board, and others have consistently shown. In thinking about the impact going forward, we can learn from the recent past.

I've provided two maps, using data organized at the Census Block Group level (with an average from five Block Groups per Census Tract) to show foreclosure filings over time in the six county Chicago metropolitan area, from 1998 through 2008. In brief, while up through 2000 foreclosures were a central city phenomenon, thereafter the rate of increase was much higher in suburban areas, particularly those in areas with limited transportation choice. Similar patterns are noted by researchers in Los Angeles, San Francisco, Houston, DC, Atlanta and Denver, and by the Federal Reserve Bank.

It seems that foreclosures are a function of two widely-acknowledged influences—limited incomes and sub-prime mortgage lending practices—and one heretofore unacknowledged one—namely excessive household financial pressure caused by the need to excessively travel.

Once again, the Housing +Transportation Affordability Index helps disclose what happened.

From 2000 to 2008, the extra costs of driving due to a doubling of gasoline prices posed a severe burden; in the Chicago maps, that burden was as low as \$800 or as high as \$4,000, depending on location and convenience. But even after the recent fall in gas prices, the cost of driving is still not affordable, as fuel only constitutes 10-20 percent of the full cost of driving—households still need to pay the fixed costs of vehicle ownership.

Back in 2000, by focusing on a definition of housing affordability limited to shelter expenditures, the regional map of Chicago on the left depicts a housing affordability gap that is bad enough at 1.04 Million or 31 percent of total households. But the map on the right, which constructs a new, H+T affordability index at 45 percent of income devoted to Housing +Transportation expenditures, shows that we really should have been concerned about a gap of 1.94 million or 58 percent of households, respectively.

Current financial literacy programs do not provide useful information for households seeking to lower the cost of living for energy or for transportation expenditures. There are experimental programs that do this in several areas of the country, and the early results are encouraging—means-tested households who are counseled to accelerate their use of such programs as weatherization assistance, mass transit passes, car-sharing—should be able to increase their savings rates from a current 1 percent to a likely 7 percent, due to the cost of living reduction that results from direct linkage to such services.

What These Findings Suggest for a Federal Agenda

The barriers to increasing transportation choice are partly federal in origin and therefore it is appropriate to suggest federal action, particularly as we believe that many of these actions can be taken under current authority, and then strengthened over time as current statutes such as SAFETEA-LU are re-authorized and new knowledge is used to issue new regulations and guidance.

I'd like to focus our immediate recommendations on actions that I believe do not require new statutory authority

1. Redefine affordability to include both housing and transportation expenditures and use this new definition to help affect the decisions made by households, communities, investors and developers, and public agencies in meeting housing and transportation needs of the American public. This action was endorsed by HUD Secretary Shaun Donovan and DOT Secretary Ray LaHood last week in testimony before the House THUD Appropriations Sub-Committee and in a new memorandum of understanding between the two agencies.
2. Support alternative mortgage underwriting and secondary market purchasing that takes the combined cost of housing and transportation into account to further reduce financial risk while increasing housing and transportation choice and meeting the needs of underserved populations and markets. A product known as Location Efficient Mortgages® was tested in several markets from 2001 to 2006 and a recent survey shows almost no foreclosures. Your committee and the new FHFA can use the affordability index to help further illuminate the gap in provision of safe and sound home financing and to provide early warning of where future risks in the market could emerge.
3. Support enhanced planning for both housing and transportation purposes that take affordability into account and use these enhanced plans to set goals for meeting the full affordability needs of each region in the country. Provide supplemental appropriations for federal statistical agencies to fill gaps in the topical and geographic coverage of the US Census and the Bureau of Labor Statistics necessary for HUD and the USDOT Bureau of Transportation Statistics to provide useful research and guidance to meet such enhanced and coordinated planning.
4. Remove barriers in current federal planning requirements for State DOT's, Metropolitan Planning Organizations, local governments and transit operators to take full local economic impact into account when rating or scoring proposals for federal transit and transportation choice investments; in particular, change the current weighting toward the value of travel time reduction and re-weight toward cost of living reduction and local value creation and value capture potential.

Provide resources to help assist in this transition. Provide resources to help identify areas in metropolitan regions where current population density already justifies supplemental transit service and those where further development could too. Sharpen the definition of transit modes to encourage the use of non-conventional and emerging modes that help address “last-mile,” short-trip, and on-demand services (e.g. car-sharing, vanpools, and modernized electric trolley buses and streetcars) where these are shown to have salutary local affordability and economic development effects.

5. Use incentives to help support partnerships between State and local transportation and housing agencies to develop plans for achieving full community livability and affordability. Consider adopting a practice piloted in the late 1990s, the “reverse RFP,” whereby the federal government will join locally driven metropolitan partnerships as a contributing member, to supplement existing entitlement and competitive approaches. Support such partnerships with planning grants, technical assistance, customized information and research, loaned personnel, and creative use of existing credit enhancement authority.
6. Put a spatial and economic benefits screen on all stimulus and recovery investments
7. Secure a joint report from the Secretary of HUD and the Secretary of USDOT with recommendations on how to take these initiatives to full scale, including an evaluation of the efficacy for options to include in the upcoming reauthorization of SAFETEA-LU

Many thanks again for the opportunity to place these findings and recommendations in the Committee’s records. We are available to provide further information upon request. Following is a summary of recommended actions and a sampling of the research referenced in this statement.

Federal Actions on Housing & Transportation Affordability

Problem	Solutions
“Affordability” is defined in terms of occupant housing-only costs as a percentage of income; but locations carry transportation cost burdens too, effectively doubling the true cost of a location	Modify all statutory definitions of housing affordability to include transportation expenditures
	Modify all regulations and guidance to do the same
While there are several sources of data used for determining the housing cost associated with a location or calculating an index for a household using site-specific data, there is no federal source of such information for transportation expenditures at a spatial resolution smaller than a metropolitan region, and no frequency greater than annually	Improve coverage and frequency of the Consumer Expenditure Survey, which has been reduced in recent years from 26 to 18 regions
	Augment the Decennial Census, the American Housing Survey and the American Community Survey to include detailed questions on household transportation expenditures
The lack of complete housing and transportation information in the marketplace supports a “drive ‘til you qualify” housing cost distribution	Work with marketplace leaders such as NAHB, NAR, MBAA, and with leading Internet-based services (e.g., Google, Zillow, Realtor.com) to disseminate full cost H+T information and to train professionals in its use
Counseling and financial literacy programs are intended to set goals for economic success and cannot do so without complete information on reasonable goals and localized methods and resources to help program users to achieve those goals	Support overlays on existing counseling platforms to help educate program participants regarding the costs of energy and of transportation
	Develop localized sources of information on available resources for cost of living reduction
GSE’s and possibly other secondary market purchasers are regulated on service to underserved markets, defined by income, race and geography; the 1992 Act asks for spatial reporting at the Census Tract level, which in suburban areas are too large to effectively catch pockets of poverty and service	Change the statute and associated regulations to affirm the use of both Census Block Group and Census Tract level information
	Work with FHFA to create easily understood, transparent, and available reporting platforms for this information
	Work with GSE’s, FHLB’s, FHA, VA and GNMA to modify their underserved markets programs appropriately
The qualifying ratio used in mortgage underwriting does not account for the cost of automobile ownership or other personal transportation and therefore represents a hidden bias toward locations with apparently low location costs	Support universal access to Location Efficient Mortgages®
	Create necessary data bases to support this
	Modify automated underwriting software offered by FNMA, Freddie Mac, FHA, Federal Reserve and others to offer LEM underwriting as a feature as opposed to a program
The use of standard housing affordability indexes in measuring area-wide gaps in total affordable stock undercounts the true magnitude and maps created for these	Provide guidance to include both housing and transportation expenditures in calculating citywide, area-wide, regional or State affordable housing gaps

purposes misidentify where targeting would do the most good	
Scoring of proposed projects for use of Low Income Housing Tax Credits under Qualifying Allocation Plans by State Tax Credit Allocation Committees rewards purchase of lowest-cost land, which is increasingly located in less accessible and inconvenient locations, adding to household cost burdens	<p>Fix scoring</p> <p>Fix reporting to Ways and Means and Senate Finance on use of tax credits</p>
End-user or customer affordability is not taken into account in federally assisted transportation planning and capital programming, Rather, the requirement is to reduce congestion and increase throughput, and do so in conformity with environmental goals. The only economic impact considered is benefit-cost ratios for major investments, and more recently, overall jobs impacts.	Fix SAFETEA-LU statute
A related problem is that the Census only asks the question, by what means of transport do you commute to work, when the Journey to Work has continuously declined as a percentage of total trip making from 50 percent around WWII to just 18 percent today. A large effort by USDOT and the economics profession equates travel time reduction with total economic benefit, when studies show the latter to be on the order of just 20 percent of what transportation choice would yield	Modify Census survey products
The FTA definition of economic impacts used in scoring cost-effectiveness of public investments in mass transit uses an incomplete definition of user costs, and an incomplete definition of public benefits; both of these have been used to starve fixed guideway mass transit of investment capital in favor of shorter-lived and higher-energy use “bus rapid transit” and even use of mass transit funding for “high occupancy toll lanes”	Direct a change in the scoring and then back it up with statutory fix upon reauthorization
The full direct cost of driving is dominated by the fixed cost of vehicle ownership and operation. When fuel prices are high the cost of driving equals or exceeds the cost of shelter; when fuel prices are low and during a time of recession, such as we currently experience, the cost of driving is still relatively fixed. Mapping of foreclosure trends and associated conditions suggests that foreclosure magnitudes may be highest in central cities but absolute increases and “hot spots” are increasingly concentrated in suburban areas. This appears to be at the intersection of insufficient income, excessive use of sub-prime funds, and	<p>Take transportation costs into account in awarding Neighborhood Stabilization Program, counseling, and financial assistance grants and credit enhancement intended to mitigate the household and community effects of foreclosure</p> <p>Use these factors to create a Foreclosure Risk Early Warning System</p> <p>Use transportation funds to retrofit communities and corridors with services and systems that create choice</p>

high transportation demand. Transportation costs may not have triggered the foreclosure crisis, but may prevent the current set of “solutions” from succeeding	and lower the costs of transportation and associated financial risks
	Use Energy Efficient Mortgages and Location Efficient Mortgages to lower risk through both cost of living reduction, or if justified, relocation

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